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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,516	11/14/2001	David P. Goren	1061B	7465

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SYMBOL TECHNOLOGIES INC
LEGAL DEPARTMENT
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HOLTSVILLE, NY 11742

EXAMINER

PEREZ GUTIERREZ, RAFAEL

ART UNIT	PAPER NUMBER
2686	12

DATE MAILED: 06/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/926,516

Applicant(s)

Goren et al.

Examiner

Rafael Perez-Gutierrez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on January 20, 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-7,11-16,18-20 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7,11-16,18-20 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This Action is in response to Applicant's amendment filed on January 20, 2004. **Claims 1, 2, 5-7, 11-16, 18-20, and 24** are now pending in the present application. **This Action is made FINAL.**

Drawings

2. The replacement drawings received on January 20, 2004 have been approved by the Examiner.

Claim Objections

3. **Claim 1** is objected to because of the following informality: On **line 11 of claim 1**, replace "information" with --signals-- after "identification" in order to provide proper antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. **Claims 1, 2, and 5-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Greenspun et al. (U.S. Patent # 5,150,310)**, of record, in view of **Jandrell (U.S. Patent # 6,459,704 B1)**, newly cited.

Consider **claims 1 and 5**, Greenspun et al. clearly show and disclose a method for providing position detection information (location identification signals), said position (location) information corresponding to a movable object (mobile asset) in a

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communication network (abstract, figure 1A, column 1 lines 7-12, column 4 line 66 - column 5 line 15, and column 7 lines 33-44), said method comprising:

waiting a predetermined period of time (inherent in the teaching of deferring transmission for a selected period of time in response to the channel being in use) (figure 3B, column 5 line 62 - column 6 line 2, and column 10 lines 58-60);

detecting radio frequency energy on a shared communication (first) channel 11 (energy detector; inherent in the teaching of detecting whether a channel is in use or occupied) (figures 1A and 3B, column 5 line 62 - column 6 line 2, column 7 lines 33-44, and column 10 lines 40-65); and

if the channel 11 is quiet (when the radio frequency energy is substantially less than a predetermined threshold), transmitting, via transmitters 12 (means for transmitting), said position (location) information on said channel 11 (abstract, figures 1A, 1B, and 3B, column 4 line 65 - column 6 line 2, column 6 lines 55-63, column 7 lines 11-23, and column 10 line 40 - column 11 line 7).

However, Greenspun et al. do not specifically disclose that if the radio frequency energy on the channel 11 is not substantially less than said threshold, detecting the presence of radio frequency energy on a second channel and if radio frequency energy on said second channel is substantially less than a predetermined threshold, transmitting said position detection information (location identification signals) on said second channel.

Jandrell clearly shows and discloses a method for radio location determination in which if a first frequency channel is busy (i.e., RF energy in said channel is not substantially less than a

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threshold) (figure 8 step 504), detecting the presence of RF energy in a second frequency channel (i.e., whether the channel is busy or quiet) (column 11 lines 36-49) and if the second frequency channel is quiet (i.e., RF energy on said second channel is substantially less than a threshold), transmitting a message (location identification signals) on said second frequency channel (figure 8 steps 504 and 512 and column 11 lines 36-57).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the steps of detecting the energy of a second channel and transmitting the location identification signals in said second channel if the energy is below the threshold as taught by Jandrell into the method taught by Greenspun et al. for the purpose of allowing a greater number of assets to be tracked by using more than one channel (i.e., due to less interference (Jandrell; column 11 lines 31-35)).

Consider **claim 2**, and **as applied to claim 1 above**, Greenspun et al., as modified by Jandrell, clearly show and disclose the claimed invention, and, in addition, Greenspun et al. further disclose, among other embodiments, that the communication network is an Ethernet network using an RF (wireless) communication channel 11 transmitting a packet (column 7 lines 33-44, column 10 lines 30-39, column 11 lines 5-7). Nonetheless, Greenspun et al. do not disclose that the packet is an 802.11 data packet.

However, the Examiner takes Official Notice that it is well known in the art to recognize an RF or wireless Ethernet communication network as a network that uses the IEEE 802.11 standard, therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to slightly modify the combined teachings of Greenspun et al. and

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Jandrell in order to specifically use the 802.11 standard in the wireless Ethernet communication network.

Consider **claim 6**, and **as applied to claim 1 above**, Greenspun et al., as modified by Jandrell, clearly show and disclose the claimed invention, and, in addition, Greenspun et al. also disclose that the transmitters 12 (figure 1A) are configured to transmit a signal that includes a tag portion that uniquely identifies the transmitter (asset identification information) (column 7 lines 51-54).

Consider **claim 7**, and **as applied to claim 1 above**, Greenspun et al., as modified by Jandrell, clearly show and disclose the claimed invention, and, in addition, Greenspun et al. further disclose that the transmitters 12 (figure 1A) are configured to transmit a signal (information sequence) selected for time-of-arrival estimation (column 8 lines 28-54).

6. **Claims 11-16, 18-20, and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Belcher et al. (U.S. Patent # 6,121,926)**, of record, in view of **Jandrell (U.S. Patent # 6,459,704 B1)**, newly cited.

Consider **claims 11, 15, 18, and 24**, Belcher et al. clearly show and disclose a mobile unit (e.g., tag) and a method for providing location identification signals, said location signals corresponding to a location of a mobile asset 14 (figure 1) in a communication network (column 2 line 33 - column 3 line 7), said unit and respective method comprising:

a receiver (figure 3) for receiving a query transmission (wake-up signal) from an interrogation wand 30 (network transmitter) (column 5 lines 30-40);

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a controller (not shown) for delaying a predetermined period of time (column 3 lines 38-52); and

a transmitter 40 (figure 3) for transmitting said location identification signals (abstract, figures 1 and 4, column 5 lines 40-46 and column 9 lines 33-53).

However, Belcher et al. do not specifically disclose detecting the presence of RF energy on a first channel in response to said query, where if said RF energy is substantially less than a predetermined threshold, transmitting said location identification signals on said first channel, if the RF energy on said first channel 11 is not substantially less than said threshold, detecting the presence of RF energy on a second channel and if RF energy on said second channel is substantially less than a predetermined threshold, transmitting said location identification signals on said second channel.

Jandrell clearly shows and discloses a method for radio location determination in which a first frequency channel is monitored, by means of an energy detector, for RF energy, where if the first frequency channel is quiet (i.e., RF energy in said channel is substantially less than a threshold), transmitting a message (location identification signals) on said first frequency channel (figure 8), where if the first frequency channel is busy (i.e., RF energy in said channel is not substantially less than a threshold) (figure 8 step 504), detecting the presence of RF energy in a second frequency channel (i.e., whether the channel is busy or quiet) (column 11 lines 36-49) and if the second frequency channel is quiet (i.e., RF energy on said second channel is substantially less than a threshold), transmitting said message (location identification signals) on said second frequency channel (figure 8 steps 504 and 512 and column 11 lines 36-57).

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the steps of detecting the energy of the first and second channels and transmitting the location identification signals in said second channel if the energy is below the threshold as taught by Jandrell into the method taught by Belcher et al. for the purpose of allowing a greater number of assets to be tracked by using more than one channel (i.e., due to less interference (Jandrell; column 11 lines 31-35)).

Consider **claims 12 and 16**, and **as applied to claims 11 and 15 above**, although Belcher et al., as modified by Jandrell, fail to disclose the use of a 802.11 packet to transmit the location identification signals, the Examiner takes Official Notice that it is well known in the art to use 802.11 packet as the means for transmitting information in environments such as the one taught by Belcher et al., therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to slightly modify the combined teachings of Belcher et al. and Jandrell in order to specifically use the 802.11 standard in the monitored environment 12 of Belcher et al. (figure 1).

Consider **claims 13 and 19**, and **as applied to claims 11 and 15 above**, Belcher et al., as modified by Jandrell, clearly show and disclose the claimed invention, and, in addition, Belcher et al. further disclose that said transmitting comprises transmitting tag identification code (asset identification information) (column 5 lines 40-46).

Consider **claims 14 and 20**, and **as applied to claims 11 and 15 above**, Belcher et al., as modified by Jandrell, clearly show and disclose the claimed invention, and, in addition, Belcher et al. also disclose that said transmitting comprises transmitting a pulse (information sequence)

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selected for time-of-arrival estimation (abstract).

Response to Arguments

7. Applicant's arguments with respect to **claims 1, 11, 15, and 24** have been considered but are moot in view of the new ground(s) of rejection.

Additionally, Applicant's failure to adequately traverse the Examiner's taking of Official Notice in the last Office Action is taken as an admission of the fact noticed (i.e., that is notoriously well known in the art to use 802.11 data packets for transmitting information).

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any response to this Office Action should be **faxed to (703) 872-9306 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Crystal Park II
2021 Crystal Drive
Arlington, VA 22202
Sixth Floor (Receptionist)

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Rafael Perez-Gutierrez whose telephone number is (703) 308-8996. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.


If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Marsha D. Banks-Harold can be reached on (703) 305-4379. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR


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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700 or call customer service at (703) 306-0377.


Rafael Perez-Gutierrez
R.P.G./rpg **RAFAEL PEREZ-GUTIERREZ**
PATENT EXAMINER

June 22, 2004


CHARLES APPIAH
PRIMARY EXAMINER